

We claim

1. The use of graft polymers as gas hydrate inhibitors.
- 5 2. The use as claimed in claim 1, wherein the graft polymers have a hydrophilic and/or hydrophobic base polymer.
- 10 3. The use as claimed in claim 2, wherein the hydrophilic base polymers are polyalkylene glycols, polyvinyl alcohols, polyvinylamides, polyvinylpyrrolidone, polyethers, polyesters, polyurethanes, polyacrylamide, polysaccharides, cellulose ethers, polyalkyleneimines, polycarboxylic acids, polyvinylsulfonic acids or polyvinylphosphonic acids or copolymers of these.
- 15 4. The use as claimed in claim 2, wherein the hydrophobic base polymers are polyalkylene glycols, such as ethylene oxide-propylene oxide copolymers or ethylene oxide-propylene oxide block copolymers, polyethers, poly(meth)acrylates, polyolefins, polystyrene or styrene copolymers, polyvinyl acetate, polyvinyl ethers, polyvinyl formals, polyvinyl acetals, polyvinyl chloride or other halogenated polyvinyl compounds, polyacrylonitrile, polyamide, polyurethanes, 20 silicones, polycarbonate, polyterephthalate, cellulose, cellulose ethers or cellulose esters or polyoxymethylene or copolymers of these.
- 25 5. The use as claimed in claim 1, wherein the graft polymers contain grafted-on units of water-soluble and/or water-insoluble monomers.
- 30 6. The use as claimed in claim 5, wherein the units grafted on make up from 10 to 90% by weight of the graft polymer.
- 35 7. The use as claimed in claim 5, wherein the units grafted on comprise N-vinyllactams, N-vinylamides, acrylates, acrylamides and/or vinyl esters.
- 40 8. The use as claimed in claim 7, wherein the units grafted on
- 45 9. The use as claimed in claim 8, wherein the units grafted on are at least one heteroatom in the main chain and of N-vinyllactams and also, if desired, of a grafted-on unit

comprising another monomer as claimed in claim 7, although polyphenylene ether shall be excluded as a base polymer.

- 5 10. A graft polymer as claimed in claim 9, wherein the hydrophilic base polymer is a polyalkylene glycol, a polyalkyleneimine, a polyether or a polyurethane, although polyphenylene ether shall be excluded as a base polymer.
- 10 11. A graft polymer as claimed in claim 10, wherein the hydrophilic polymer is polyethylene glycol.
- 15 12. A graft polymer as claimed in claim 9, wherein the unit grafted on is N-vinylcaprolactam or else, if desired, a vinyl ester.
- 20 13. A process for preventing or reducing the formation of gas hydrates in liquid or gaseous systems, which comprises adding a graft polymer to the liquid or gaseous systems.

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